

## Income Inequality in Missouri 2000

Through the growth in global media, people around the world are becoming more aware of and more vocal about the gap between the rich and the poor. Policy makers, researchers and academics are also increasingly recognizing the links between inequality and other social and economic phenomena. Contrary to popular opinion, high levels of inequality persist in many high income countries today. Even within the United States, there are pockets of both extreme poverty and wealth. Inequality is often studied as part of broader analyses covering poverty, although these concepts are distinct. Inequality is a broader concept than poverty in that it is defined over the whole distribution, not only the censored distribution of individuals or households below a certain poverty line. Incomes at the top and in the middle of the distribution may be just as important to us in perceiving and measuring inequality as those at the bottom, and indeed some measures of inequality are driven largely by incomes in the upper tail. Although both of these capture the whole distribution of a given indicator, inequality is independent of the mean of the distribution and instead is solely concerned with the dispersion of the distribution.

The degree of income inequality across Missouri was measured by the Gini coefficient using 2000 Census data at the tract-level. Household income data for this analysis was extracted from the 2000 U.S. Census Summary File 3, which consists of 813 detailed tables of social, economic and housing characteristics compiled from a sample of approximately 1 in 6 Missouri households that received the Census 2000 long-form questionnaire.

The Gini coefficient (G) was used to measure the degree of concentration (inequality) in household income across 16 income groupings. The Gini coefficient compares the Lorenz curve of a ranked empirical distribution with the line of perfect equality. This line assumes that each element has the same contribution to the total summation of income. The Gini coefficient ranges between 0 and 1. Scores of 0 indicate that there is no concentration of income (perfect income equality), and scores of 1 indicate that there is total concentration of income (perfect income inequality). The Gini coefficients in Missouri were then z-normalized to the Missouri mean of  $G=0.256$ .

$$G = \left| 1 - \sum_{i=0}^N (\sigma Y_{i-1} + \sigma Y_i)(\sigma X_{i-1} - \sigma X_i) \right|$$

Where:

N = number of elements

s X = cumulative distribution of elements

s Y = cumulative distribution of values

***Inequality poverty centers*** were defined as those areas having inequality/Gini scores that were 1.0 or more standard deviations above the mean and having 50% or more of all households with incomes of \$25,000 or less. This indicates a concentration of lower income households in the area.

Poverty centers in south central Missouri were centered around Oregon, Ripley, Shannon and Wayne counties. In addition to being persistently poor, these areas include large tracts of federal land such as Mark Twain National Forest and the Ozark National Scenic Riverways.

Poverty centers in the Missouri Bootheel were centered around Dunklin, Mississippi and Stoddard counties. In addition to being persistently poor, these areas are engaged in large-scale intensive agriculture of cash crops.

Poverty centers in the west central area were centered around the lake recreation counties of Benton, Hickory and St. Clair. These areas are dependent on the amusement and recreation industry associated with Truman Reservoir, Pomme de Terre Lake and the western fork of the Lake of the Ozarks.

Poverty centers in northern Missouri were concentrated in Adair County north of Kirksville, Macon County south of Macon and south central Putnam County surrounding Unionville.

Poverty centers in the major metropolitan areas were located in the central city areas of Kansas City, St. Louis and Springfield; and to areas to the west and southwest of Columbia.

***Inequality wealth centers*** were defined as those areas having inequality/Gini scores that were 1.0 or more standard deviations above the mean and having 50% or more of all households with incomes of \$100,000 or more. This indicates a concentration of higher income households in the area.

Wealth centers in the Kansas City metro were centered around areas of Lee's Summit and Kansas City adjacent to Longview Lake; and in an area of Kansas City directly east of Mission Hills, Kansas.

Wealth centers in St. Louis metro were centered in western St. Louis County, including sections of Wildwood, Chesterfield, Clarkson Valley, Town and Country, Country Life Acres, Westwood, northern Frontenac, Ladue and Warson Woods.

***Equality centers*** were defined as areas having inequality/Gini scores that were 1.0 or more standard deviations below the mean. This low inequality, or income equality, indicates that there is little concentration of income in any one category - it is more evenly distributed across categories.

Equality centers in the Kansas City metropolitan area were located in the suburban areas of Clinton, northwest Jackson, Platte and western Ray counties.

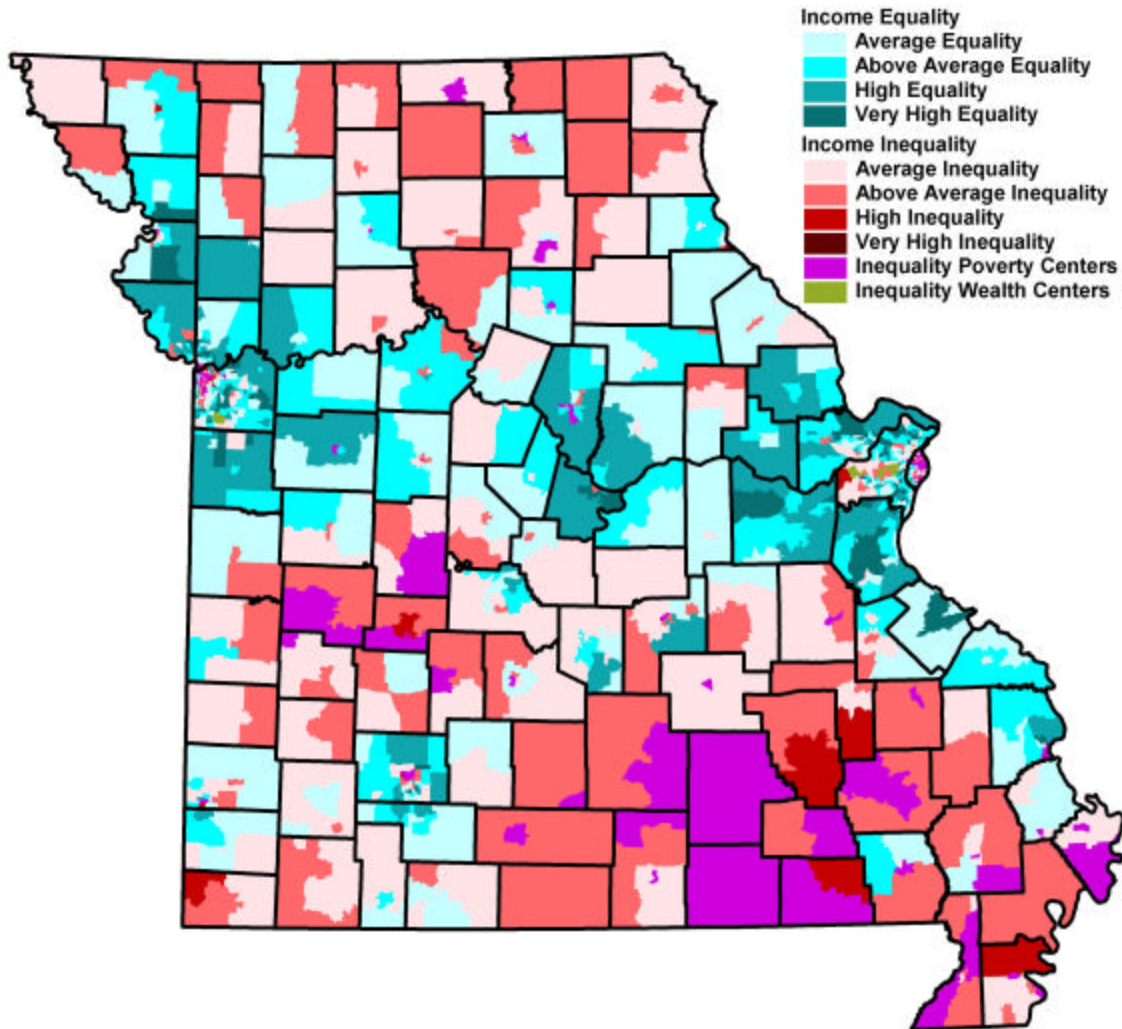
Equality centers in the St. Louis metropolitan area were located in suburban areas of eastern and western Franklin, Lincoln, northern and northwestern St. Charles and Warren counties.

Equality centers in the smaller metropolitan areas were located in the outlying areas of the Columbia metro in Boone County; in suburban Springfield in northern and southeastern Greene and northern Christian counties; and in outlying areas of the St. Joseph metro in southern Andrew and south central Buchanan counties.

Equality centers in central Missouri were located in Cole County around Jefferson City, southwestern Callaway County, the northern half of Johnson County around Warrensville, Pulaski County at Fort Leonard Wood and Phelps County southeast of Rolla.

Equality centers in southeastern Missouri along the Mississippi River were located in central Ste. Genevieve County and in an area north of Cape Girardeau.

## Income Inequality in Missouri by Census Tract, 2000.



Gini coefficients z-normalized to Missouri mean.

Average defined as 0.0-0.5 standard deviations around the mean.

Above Average defined as 0.5-1.0 standard deviations around the mean.

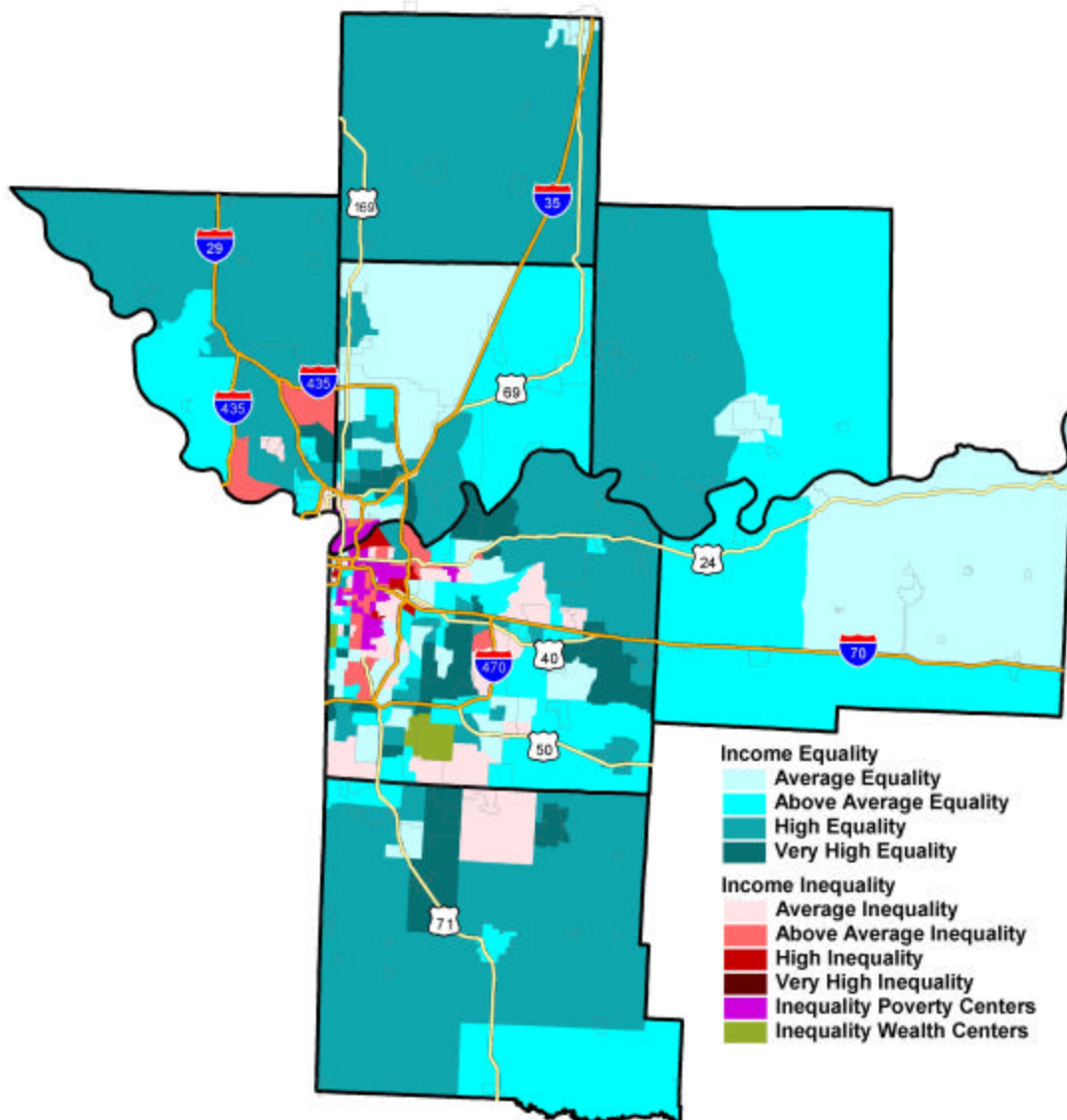
High defined as 1.0-1.5 standard deviations around the mean.

Very High defined as more than 1.5 standard deviations around the mean.

Poverty Centers defined as 50% or more households having incomes of \$25,000 or less.

Wealth Centers defined as 50% or more households having incomes of \$100,000 or more.

## Income Inequality in the Kansas City MSA by Census Tract, 2000.



Gini coefficients z-normalized to Missouri mean.

Average defined as 0.0-0.5 standard deviations around the mean.

Above Average defined as 0.5-1.0 standard deviations around the mean.

High defined as 1.0-1.5 standard deviations around the mean.

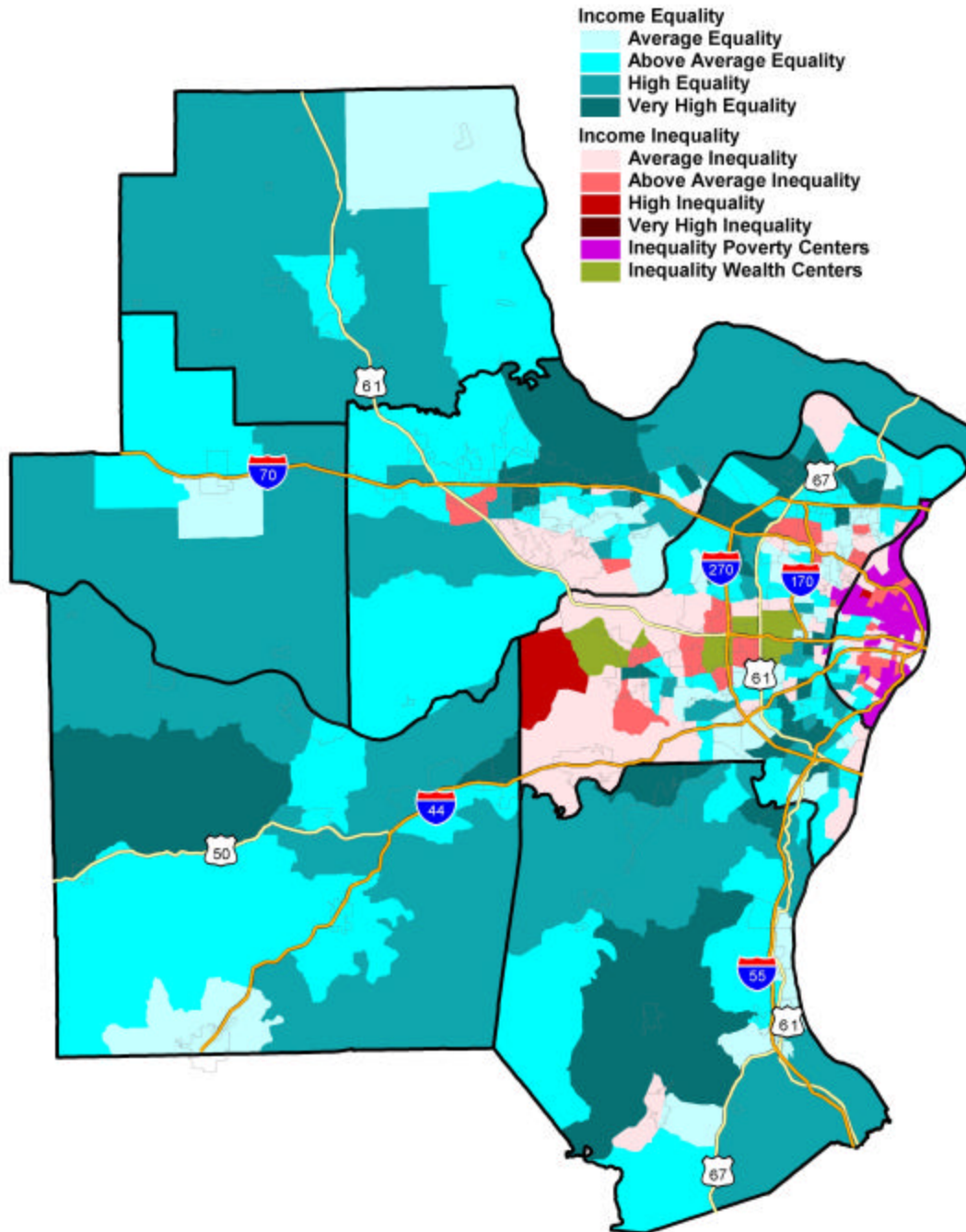
Very High defined as more than 1.5 standard deviations around the mean.

Poverty Centers defined as 50% or more households having incomes of \$25,000 or less.

Wealth Centers defined as 50% or more households having incomes of \$100,000 or more.



# Income Inequality in the St. Louis MSA by Census Tract, 2000.



Gini coefficients z-normalized to Missouri mean.

Average defined as 0.0-0.5 standard deviations around the mean.

Above Average defined as 0.5-1.0 standard deviations around the mean.

High defined as 1.0-1.5 standard deviations around the mean.

Very High defined as more than 1.5 standard deviations around the mean.

Poverty Centers defined as 50% or more households having incomes of \$25,000 or less.

Wealth Centers defined as 50% or more households having incomes of \$100,000 or more.

## About MERIC

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The Missouri Economic Research and Information Center (MERIC) at the Missouri Department of Economic Development provides comprehensive analysis of Missouri's socioeconomic environment at the local, regional and state levels. To achieve this, MERIC employs a wide array of analysis tools, which include econometric models, geographic information systems and advanced statistical methods. On-going projects at MERIC include targeted development, economic and social impact assessments, industry and occupational analyses, layoff analyses, and information on Missouri's demographic and economic trends. Coupled with its analysis capability, MERIC is also the U.S. Department of Labor affiliate that maintains a comprehensive labor market database for Missouri. MERIC has current information on employment/unemployment, occupations, wages, layoffs, labor availability, and a variety of other information designed to help understand labor market conditions.

In addition, MERIC has developed an outreach infrastructure which includes a comprehensive web site, e-mail distribution list and monthly newsletter. MERIC's mission is to provide value-added research with a customer focus, which means offering accurate, relevant and timely information to decision makers and the public to facilitate a better understanding of Missouri's socioeconomic environment. Ultimately, MERIC and the rest of the Department of Economic Development strive to make Missouri the best place to live, work, vacation and conduct business.

For more information, visit MERIC on-line at

<http://www.MissouriEconomy.org>

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